



SEQUENCE LISTING

<110> Reiter, Robert E.  
Witte, Owen N.  
Saffran, Douglas C.

<120> PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF

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<141> 1999-07-20

<150> 08/814,279

<151> 1997-03-10

<150> 60/071,141

<151> 1998-01-12

<150> 60/074,675

<151> 1998-02-13

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<170> PatentIn Ver. 2.0

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B2

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gcctgcaggt ggagaactgc acccagctgg gggagcagtg ctggaccgcg cgcacccgcg 180  
cagttggcct cctgaccgtc atcagcaaag gctgcagctt gaactgctg gatgactcac 240  
aggactacta cgtgggcaag aagaacatca cgtgctgtga caccgacttg tgcaacgcca 300  
gcggggccca tgccctgcag ccggctgccg ccacccctgc gctgctccct gcactcggcc 360  
tgctgctctg gggaccgccc cagctatagg ctctgggggg ccccgctgca gccacactg 420  
ggtgtggtgc cccaggcctt tgtgccactc ctcacagaac ctggcccagt gggagcctgt 480  
cctggttcct gaggcacatc ctaacgcaag tttgaccatg tatgtttgca ccccttttcc 540  
ccnaaccctg accttcccat gggccttttc caggattccn accnggcaga tcagttttag 600  
tganacanat ccgcntgcag atggcccctc caaccntttt tggtgntggt tccatggccc 660  
agcattttcc acccttaacc ctgtgttcag gcacttnttc ccccaggaag ccttccctgc 720  
ccaccccat tattaattga gccaggtttg gtccgtggtg tccccgcac ccagcagggg 780  
acaggcaatc aggagggccc agtaaaggct gagatgaagt ggactgagta gaactggagg 840  
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 1 5 10 15

Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn  
 20 25 30

Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys  
 35 40 45

Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys  
 50 55 60

Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly  
 65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly  
 85 90 95

Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala  
 100 105 110

Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu  
 115 120

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<211> 441

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<213> MURINE PSCA (mPSCA)

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 tgcagcctgg accagcacag ttgctttaca tcgcgcatcc gggccattgg actcgtgaca 180  
 gttatcagta agggctgcag ctcacagtgt gaggatgact cggagaacta ctatttgggc 240  
 aagaagaaca tcacgtgctg ctactctgac ctgtgcaatg tcaacggggc ccacaccctg 300  
 aagccacca ccaccctggg gctgctgacc gtgctctgca gcctgttgct gtggggctcc 360  
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 1 5 10 15

Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn  
20 25 30

Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys  
35 40 45

Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys  
50 55 60

Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly  
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly  
85 90 95

Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu  
100 105 110

Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu  
115 120

<210> 5

<211> 131

<212> PRT

<213> HUMAN STEM CELL ANTIGEN (hSCA-2)

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Met Lys Ile Phe Leu Pro Val Leu Leu Ala Ala Leu Leu Gly Val Glu  
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Arg Ala Ser Ser Leu Met Cys Phe Ser Cys Leu Asn Gln Lys Ser Asn  
20 25 30

Leu Tyr Cys Leu Lys Pro Thr Ile Cys Ser Asp Gln Asp Asn Tyr Cys  
35 40 45

Val Thr Val Ser Ala Ser Ala Gly Ile Gly Asn Leu Val Thr Phe Gly  
50 55 60

His Ser Leu Ser Lys Thr Cys Ser Pro Ala Cys Pro Ile Pro Glu Gly  
65 70 75 80

Val Asn Val Gly Val Ala Ser Met Gly Ile Ser Cys Cys Gln Ser Phe  
85 90 95

Leu Cys Asn Phe Ser Ala Ala Asp Gly Gly Leu Arg Ala Ser Val Thr

100

105

110

Leu Leu Gly Ala Gly Leu Leu Leu Ser Leu Leu Pro Ala Leu Leu Arg  
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Phe Gly Pro  
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<210> 6  
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 <213> HUMAN PSCA (hPSCA)

<400> 6  
 Met Lys Ala Val Leu Leu Ala Leu Leu Met Ala Gly Leu Ala Leu Gln  
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Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn  
 20 25 30

Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys  
 35 40 45

Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys  
 50 55 60

Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly  
 65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly  
 85 90 95

Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala  
 100 105 110

Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu  
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20 25 30

Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys  
35 40 45

Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys  
50 55 60

Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly  
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly  
85 90 95

Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu  
100 105 110

Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu  
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<212> DNA  
<213> Artificial Sequence

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<210> 9  
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<213> SCID Mice

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ggggcagaac ttgtgaggtc aggggcctca gtcaagttgt cctgcacagc ttctggcttc 120  
aacattaaag actactatat aactgggtg aatcagaggc ctgaccaggc cctggagtgg 180  
attggatgga ttgatcctga gaatggtgac actgaatttg tcccgaagtt ccagggcaag 240  
gccactatga ctgcagacat tttctccaac acagcctacc tgcacctcag cagcctgaca 300  
tctgaagaca ctgccgtcta ttactgtaaa acgggggggtt tctggggcca agggactctg 360  
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<211> 136

<212> PRT

<213> SCID Mice

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Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Ser Gly Ala Ser Val Lys  
20 25 30

Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys Asp Tyr Tyr Ile His  
35 40 45

Trp Val Asn Gln Arg Pro Asp Gln Gly Leu Glu Trp Ile Gly Trp Ile  
50 55 60

Asp Pro Glu Asn Gly Asp Thr Glu Phe Val Pro Lys Phe Gln Gly Lys  
65 70 75 80

Ala Thr Met Thr Ala Asp Ile Phe Ser Asn Thr Ala Tyr Leu His Leu  
85 90 95

Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys Lys Thr Gly  
100 105 110

Gly Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr  
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Thr Pro Pro Ser Val Tyr Pro Leu  
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<210> 12

<211> 426

<212> DNA



<213> SCID Mice

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agctactgga tgcactgggt gaagcagagg cctggacaag gccttgagtg gattggaaat 180
attgaccctg gtagtggtta cactaactac gctgagaacc tcaagaccaa ggccacactg 240
actgtagaca catcctccag cacagcctac atgcagctca gcagcctgac atctgaggac 300
tctgcagtct attactgtac aagccgatct actatgatta cgacgggatt tgcttactgg 360
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<212> PRT

<213> SCID Mice

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Pro Gly Ser Glu Leu Val Arg Pro Gly Thr Ser Val Lys Leu Ser Cys
          20             25             30

Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr Trp Met His Trp Val Lys
          35             40             45

Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Asn Ile Asp Pro Gly
          50             55             60

Ser Gly Tyr Thr Asn Tyr Ala Glu Asn Leu Lys Thr Lys Ala Thr Leu
65             70             75             80

Thr Val Asp Thr Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu
          85             90             95

Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Thr Ser Arg Ser Thr Met
          100             105             110

Ile Thr Thr Gly Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
          115             120             125

Ser Ala Ala Thr Thr Thr Ala Pro Ser Val Tyr Pro Leu Ala
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<210> 14

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<212> DNA  
<213> SCID Mice

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tgtgtagcct ctggatttac ttccagtaat tactggatga ctggggtccg ccagtctcca 180
gagaaggggc ttgagtgggt tgctgaaatt cgattgagat ctgaaaatta tgcaacacat 240
tatgcgaggat ctgtgaaagg gaaattcacc atctcaagag atgattccag aagtcgtctc 300
tacctgcaaa tgaacaactt aagacctgaa gacagtggaa ttattactg tacagatggg 360
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<210> 15  
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<212> PRT  
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  1             5             10             15
```

```
Val Arg Ser Glu Val Arg Leu Glu Glu Ser Gly Gly Gly Trp Val Gln
      20             25             30
```

```
Pro Gly Gly Ser Met Lys Leu Ser Cys Val Ala Ser Gly Phe Thr Phe
      35             40             45
```

```
Ser Asn Tyr Trp Met Thr Trp Val Arg Gln Ser Pro Glu Lys Gly Leu
      50             55             60
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Glu Trp Val Ala Glu Ile Arg Leu Arg Ser Glu Asn Tyr Ala Thr His
      65             70             75             80
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Tyr Ala Glu Ser Val Lys Gly Lys Phe Thr Ile Ser Arg Asp Asp Ser
      85             90             95
```

```
Arg Ser Arg Leu Tyr Leu Gln Met Asn Asn Leu Arg Pro Glu Asp Ser
      100            105            110
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Gly Ile Tyr Tyr Cys Thr Asp Gly Leu Gly Arg Pro Asn Trp Gly Gln
      115            120            125
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Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro Ser Val
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Tyr Pro Leu Ala Pro Cys Val
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<210> 17  
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By

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<223> Description of Artificial Sequence: RT-PCR PRIMER

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<223> g or t

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